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Better policy interventions through intersectionality

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Abstract

Deployment of intersectionality frameworks in policy design and implementation is a way to ensure that the means and goals of interventions are congruent with target populations' understanding of their circumstances, their desired outcomes, and their empowerment. In this paper, we examine the ways concepts from psychology have been used to inform interventions and policies, and we use an intersectional lens to suggest improvements to these interventions to be more inclusive in their impact. We review three social policy interventions that were developed based on social psychological research: (1) sexual assault prevention programs based on bystander interventions; (2) so-called "wise schooling" programs, intended to ameliorate gaps in academic achievement stemming from stereotype threat; and (3) programs aiming to foster pro-environmental behavior, specifically, recycling. Following Cole's (2009) recommendations for using intersectionality in research in psychology together with the guiding principles that define Intersectionality-Based Policy Analysis (Hankivsky et al., 2014), we interrogate how the psychological research that provides the foundation for these policies informs them at different points in the policy cycle and suggest alternatives designed to more equitably address these problems. Our analysis shows that these problems demand a multi-level analysis that recognizes intersecting identities.

INTRODUCTION

Social psychologists often aspire to "give psychology away" (Miller, 1969) to better humankind because they believe that understanding social problems is the key to intervention (Eaton et al., 2021). In some areas, psychologists have been quite successful in transforming knowledge into practice, as in, for example, the widespread adoption of implicit bias training in corporate and business settings

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meant to reduce discriminatory hiring and promotion practices (Green & Hagiwara, 2020). However, as research is translated into interventions, there is a risk that these practices may replicate oversights of the research paradigms themselves (Grzanka & Cole, 2021). One critical type of lapse stems from psychology's failure to address the varied experiences of diverse populations, and this is especially true for populations defined by multiple types of marginalization (Cortina et al., 2012; Shin et al., 2017). In fact, the populations typically studied by psychologists—young adults from Western, educated, industrialized, rich, and democratic populations (i.e., WEIRD; Arnett, 2016)—do not tend to be those who are most harmed by social problems. In this paper, we examine the ways concepts from psychology have informed interventions and policies in several areas, and we use an intersectionality framework (Cole, 2009) to reimagine how these research programs, and thus the policies based on them, could be more inclusive in their impact.

To be sure, the field of public policy can be marked by the same shortsightedness, and in recent years, policy scholars have developed methods of critical analysis to understand how policies have different repercussions for target populations that vary in social location (e.g., based on race/ethnicity or socioeconomic status), and how policies designed for one target group can contribute to inequities by not addressing the needs of other populations (Hankivsky & Jordan-Zachary, 2019). However, because little of this work has considered policy gaps for those located at the intersection of multiply marginalized identities (Hankivsky & Jordan-Zachary, 2019; for an exception, see Schulz & Mullings, 2005), it has been necessary for scholars to develop methods for policy analysis based on the analytic framework of intersectionality (Cole, 2009; Crenshaw, 1989).

Although the concept of intersectionality has traveled to many disciplines in the academy and beyond, in fact, it was developed by Black feminists specifically to identify and address gaps in social policy that disadvantage those located at the intersection of multiply marginalized groups (Cho et al., 2013). Members of multiply marginalized groups are often vulnerable to problems linked to structural inequality, yet they may experience intersectional invisibility (Purdie-Vaughns & Eibach, 2008) because they are not recognized as prototypical of the groups to which they belong (e.g., Black women are perceived as less feminine than White women and less typically Black than Black men). The policy implications of this kind of invisibility motivated Kimberle Crenshaw's (1989) original articulation of intersectionality when she noted that Black women were considered imperfect plaintiffs in antidiscrimination law because their negative workplace experiences could not be explained as the result of either race or gender discrimination.

By recognizing how individuals are positioned within social hierarchies, intersectionality frameworks can link a psychological focus on individual differences with a sociological understanding of the impact of social structure (Wiseman, 1979), which is important to consider when designing social policy. Additionally, intersectionality is, at its core, committed to social justice, or what May terms *antisubordination* (2015, p. 229). As such, it emphasizes the viewpoints, agency, and self-determination of marginalized populations. Deployment of intersectionality frameworks in policy design and implementation can help ensure that the means and goals of interventions are congruent with the ways target populations understand their circumstances, their desired outcomes, and their empowerment to bring about desired outcomes. For example, communities of color are often legitimately distrustful of carceral solutions; thus, domestic violence interventions dictating police responses may be ineffective at best and in fact are likely to create additional harm. As an alternative, activist groups recommend grassroots responses (INCITE! Women of Color Against Violence, 2016); for example, they recommend strategies for the friends, families, and communities of aggressors to hold them accountable and encourage them to work to repair the harm they have done (Bierria et al., 2016).

USING INTERSECTIONALITY TO INFORM POLICY ANALYSIS

In creating the neologism of intersectionality, Crenshaw (1989) drew and expanded on over 100 years of theorizing by African-American women “[advancing] the idea that systems of oppression—namely,

racism, classism, sexism, and heterosexism—worked together to create a set of social conditions under which [B]lack women and other women of color lived and labored, always in a kind of invisible but ever-present social jeopardy” (Cooper, 2015, p. 389). At its root, the concept of intersectionality aims to understand and challenge (Hancock, 2016) the ways that inequality is created and maintained through social categories of “identity, difference, and disadvantage” (Cole, 2009, p. 170). These typically include (but of course are not limited to) race, gender, sexuality, and nation. Within this framework, such categories are revealed to mutually construct one another and work together to shape outcomes. Importantly, intersectionality was not conceptualized primarily as an analytic tool for academics but as “a means to question and to challenge dominant logics, to further anti-subordination efforts, and to forge collective models for social transformations that do not replicate or reinforce the inequalities, erasures, and distortions animated and buttressed by either/or logics” (May, 2015, p. 4). Accordingly, intersectionality is fundamentally a way to understand how power and inequality affect people’s lives and to identify strategies for change.

In recent years, scholars in the social and behavioral sciences have attempted to articulate procedures for using intersectionality frameworks to inform research as well as policies based on research. Cole (2009) provided three questions that psychologists can ask at each stage in the research process in order to better conceptualize how social categories jointly shape experiences and outcomes: Who is included within this category?; What role does inequality play?; Where are there similarities across groups? Williams et al. (2020) demonstrated how reflection on these questions can help psychologists to re-imagine their studies with implications for policy applications by systematically considering the impact of structural factors (e.g., discriminatory institutions such as medical services) on outcomes.

In addition, intersectionality-based Policy Analysis (IBPA; Hankivsky et al., 2014) was developed in public health to understand the limitations of existing policy solutions, in order to help design alternatives that recognize and address the complex needs of populations defined by multiple locations and inequity. This approach identifies a number of guiding principles including: (1) attention to intersecting categories, multiple levels of analysis, and particularities of time and space; (2) concern with power and equity, and (3) respect for diverse knowledge. These are applied *descriptively* to understand both the contexts in which social problems take place, the implicit assumptions underlying existing policy solutions, and the consequences of these assumptions. As a second step, IBPA applies these principles *transformationally* toward the goal of creating the structural change that increases equitable outcomes. More concisely, in order to envision alternative policy solutions that promote social justice, IBPA considers how social problems are defined (and from whose standpoint), how groups at different intersecting social locations experience power inequities, and in turn, how these groups may be differentially affected by these problems. Like Cole (2009), Hankivsky et al. provide a list of questions to facilitate this analysis; as they are both grounded in intersectionality, many of their questions are concerned with the same issues of marginalization, power, and inequity.

THREE CASE STUDIES

In the sections that follow, we review three social policy interventions that were developed based on social psychological research: (1) sexual assault prevention programs based on bystander interventions; (2) so-called “wise schooling” programs, intended to mitigate gaps in academic achievement stemming from stereotype threat; and (3) programs aiming to encourage pro-environmental behavior, specifically, recycling. Informed by the guiding principles that define IBPA, we use Cole’s (2009) three questions to interrogate how the psychological research that provides the foundation for these policies informs them at different points in the policy cycle and to suggest alternatives designed to more equitably address these problems. Current policies based on social psychological research implicitly describe the sources of social problems and the most affected populations. Our analysis identifies the limitations of these assumptions by *describing* the intersectional invisibility (Purdie-Vaugh & Eibach, 2008) of marginalized groups whose circumstances the policies

do not adequately address and by imagining *transformative* policies that are more equitable and inclusive.

We chose these specific interventions as case studies because they each locate the source (and/or the solution) of the social problem primarily at one aspect of social identity. Bystander interventions frame assault on college campuses as a gendered problem in which men assault women. Wise schooling interventions frame school achievement gaps primarily in terms of racial and gender stereotypes. Interventions targeting pro-environmental behavior typically presume middle-class subjects. Our analysis will show that these problems demand a multi-level analysis that recognizes intersecting identities. Table 1 outlines each of the questions used to interrogate these three policies, summarizes our observations, and provides policy recommendations.

Sexual assault prevention programs

Sexual assault has been a problem on college campuses for at least as long as women and men have attended the same colleges. However, the problem has only been defined as an epidemic since 1985, when the first large-scale survey of sexual assault on college campuses was conducted by *Ms.* magazine and researcher Mary Koss. This survey found that 25% of women had experienced rape or attempted rape (Warshaw, 1988). It was not until the White House Task Force to Protect Students From Sexual Assault released its first report in 2015 that the problem came to widespread public attention. However, as early as the late 1960s, colleges began implementing sexual assault prevention programs, focusing on individual factors such as attitudes and behavioral intentions (for a review, see Breitenbecher, 2000). In 2004, guidelines for designing sexual assault prevention programs based on bystander intervention research first appeared (Banyard et al., 2004), and in fact the reauthorization of the Violence Against Women Act in 2013 mandated that in order to receive federal funding, colleges must provide their students anti-sexual violence programs, which include bystander training (*Violence against women reauthorization act* of 2013; for reviews of these programs, see Kettrey & Marx, 2019, 2021).

Bystander intervention programs themselves are rooted in classic social psychological research about the factors that make it more or less likely that people not involved in an incident will take action to help someone in need (Darley & Latane, 1968; Latane & Darley, 1968). Sexual assault bystander intervention programs were created in reaction to prevention programs that focused mainly on men as perpetrators and women as victims, ignoring the potential role of other community members, who often witness situations where sexual assault is likely to occur (Banyard et al., 2007). Thus, bystander intervention in potential sexual assaults is arguably a way to make the entire college community responsible for prevention (Banyard et al., 2004).

In one popular bystander intervention training program for sexual assault prevention (Banyard et al., 2004, 2007) college women and men attend either one or three single-gender sessions led by a trained peer leader. In addition to hearing basic information of the prevalence, causes, and consequences of sexual violence, participants also discuss ways in which bystanders can intervene to prevent sexual violence and participate in role plays to practice these skills. Vignettes based on these role-play situations have been used in experimental research about bystander intervention in sexual assault prevention (Bennett & Banyard, 2016). In these studies, participants are asked to read a vignette in which a sober man whose other identities are unspecified leads a similarly unspecified intoxicated woman into a private room at a party. The study participant is then asked to answer a series of close-ended questions concerning things like how willing they are to intervene, what might prevent them from intervening, and how competent they feel about intervening in specific ways (Banyard et al., 2007). These studies have found that women were more likely to indicate they would intervene than men and that participants were more likely to say they would intervene when attending the party in groups (rather than alone) and when they knew the potential victim.

TABLE 1 Interrogations of three policies using questions based on intersectionality theory

Questions	Sexual assault prevention programs	Wise schooling	Pro-environmental behavior
Who is included in the definition of the problem to be addressed by the policy? Who is left out? Whose problem is it?	Drunk women residential students are victims, men attending parties are perpetrators Non-residential students (e.g., commuter, non-traditional students) and assaults occurring where there are not bystanders (e.g., dorms, campus buildings, parks) are left out. The problem is construed as the victims', not as the perpetrators'. The underlying patriarchal power structures are not addressed	Academically identified, stigmatized minority groups are targeted for interventions. This leaves out unidentified and younger students who may not get to college. Problem is identified as the distal societal and proximal testing contexts. Aspects of the classroom that are related to the differential disidentification of different groups is not addressed	Targets are construed as individual actors who are presumed to be middle class, first-world persons with the opportunity to choose among different options for consumption. Accordingly, policies foreground individual agency, morality, motivation, and conformity. Much less attention to communities with environmental crises. Does not address corporate and governmental sources of environmental degradation
What role do power and inequality play in the definition and resolution of the problem?	Other types of sexual violence (e.g., intimate partner violence, non-penetrative sexual assault, sexual harassment, stalking) are not prioritized. Students who have reason to distrust security, police, or administrators may see them as threats and not report assaults Assaults against gay men and Black women may not be viewed as important	Interventions target one stigmatized identity at a time, leaving out differences in how group identities differentially impact identification and stereotype threat (e.g., between Black women and Black men)	Does not address power that middle-class people may have outside their households. Does not address the role of corporations and government in manipulating public opinion
Where are the similarities in the experiences of different groups being affected by the problem?	Black women and gay men are perceived by bystanders as more likely to be consenting to sex and so are less likely to be helped	Research on holding two identities with opposing stereotypes points out complexity of intersecting identities (e.g., Asian-American women in math)	Women in different contexts view their gender role as including environmental protection, which may be associated with activism
How do methodological practices and biases contribute to the intersectional invisibility of groups affected by policies?	Research uses laboratory experimental approach and so ignores the root of the problematic behavior (structural power and dominance)	Real-world interventions have weaker effects than those in the lab; interventions need to be targeted to school and societal levels as well as individual levels	Focus on psychological constructs like attitudes and beliefs rather than context. Highest impact behaviors are infrequent so they are difficult to measure, and thus less often studied
Policy recommendations	Interventions must include intersectional examples identifying a diverse group of perpetrators and victims; should also include critique of structured power and dominance of straight men in a patriarchal system	Interventions must start earlier, with all students; must address how others view and treat students of different groups (e.g., are there stereotypes of girls of color that work against them?)	Interventions could target pro-environmental political mobilizations; to do so, it is necessary to attend to the particularities of how race, gender, and class identities construe the nature of environmental threats

Using our questions to interrogate sexual assault prevention programs based on bystander intervention, we start with the first set: *Who is included in this research? Who is left out? Whose problem is it?* These vignettes and the interventions based on them (Kettrey & Marx, 2019) reflect implicit assumptions about what kind of violence is going on on campuses, who the victims and perpetrators are, and who is able to observe it (Klein et al., 2020). The victims in these vignettes are almost always women; ethnicity, sexual orientation, and other group memberships are rarely mentioned. Research shows that stereotypes of “women” overlap greatly with stereotypes of White women (Landrine, 1985), thus the vignettes (possibly inadvertently) center the experiences of White women. At the same time, women of color, people with disabilities, and transgender people are more likely to experience sexual violence and less likely to seek services after experiencing sexual assault than White women, people without disabilities, and cisgender people (Klein et al., 2020).

These programs are based on the assumption that sexual violence is most likely to happen where there are bystanders; that is, at college parties in dormitories or fraternity and sorority houses. This implicates a residential college setting, which leaves out commuter campuses and students and non-traditionally aged students, neither of whom live on campus but who can be sexually assaulted. Both of these groups of students are disproportionately working class as well (Horn & Nevill, 2006). Of course, residential college campuses were the first to identify sexual assault as a problem, and parties that include heavy drinking are prime sites for sexual assault. However, a focus on the party setting may leave out not only commuter and non-traditional students but also ignore other locations where sexual assault can occur, from dorm rooms, to libraries, to parks, where there may or may not be bystanders.

In terms of *whose problem it is*, sexual assault prevention programs based on bystander interventions work to make the entire college community responsible for the problem, which is an improvement over past interventions focused on individuals (Banyard et al., 2004). Yet, this approach still fails to recognize sexual assault as men’s problem, despite the fact that their sexual entitlement may play a key role in such behavior (McDermott et al., 2015; Schwartz, 2015). It is notable that the interventions rarely, if ever, address the social identities of the perpetrators (who are always men in these scenarios), and how they are associated with the systemic social power enjoyed by men in a patriarchal system.

When considering the second question, “*What role does power and inequality play?*,” the decision by administrators to prioritize the prevention of sexual violence occurring where there are bystanders means that resources may not be directed toward the prevention of sexual violence that occurs outside of these settings (which may more greatly affect working-class students), or, indeed, other types of sexual violence may not be considered as problems at all. For example, intimate partner violence, non-penetrative sexual assault, sexual harassment, and stalking are not included in these prevention programs (Klein et al., 2020; Sabina & Ho, 2014).

In addition, it is essential to look at how intersecting social identities may affect willingness to intervene to prevent potential sexual assault. For example, students who have reason to distrust the police, campus security, or campus administrators may see them as threats rather than allies and may be less likely to use specified reporting channels (Klein et al., 2020). Assaults against women of color may not be taken as seriously as assaults against White women because of differences in proximity to White men in the power structure (Hurtado, 1989). Assaults against gay men may not be taken as seriously as assaults against women because of homophobia (Katz et al., 2015).

The third question, which asks, “*Where are the similarities?*,” allows us to take a step back to think about common processes that affect different groups in similar ways. That is, programs based on the bystander paradigm assume that education and training remove the key barriers to intervention. However, other research that specifies the social identities of victims and bystanders (but not perpetrators) demonstrates that common stereotypes based on the social identities of victims may interfere with bystander willingness to intervene. For example, Katz and colleagues found that White women were less likely to intervene in a potential sexual assault scenario involving an unspecified male perpetrator and a Black woman (Katz et al., 2017) or gay male victim (Katz et al., 2015), suggesting that stereotypes of Black women and gay men as promiscuous may interfere with effective bystander

intervention. That is, bystanders' stereotypes of Black women and gay men might lead them to construe the situation as not needing intervention because they assume there is consent. The similarities in these stereotypes and outcomes underline the little-recognized reality that bystander willingness to intervene depends very much on the social identities of potential victims. It would be useful, therefore, if bystander intervention programs featured materials that included a diverse set of victims and perpetrators and offered opportunities for participants to critically reflect on attributions they may make about different groups.

Fourth, in terms of *methodological practices* and how biases in these practices might contribute to the intersectional invisibility of groups affected by policies based on psychological research, and how it could be done differently, these bystander intervention sexual assault prevention programs are rooted in classic social psychological research on altruism and helping (for a review, see Banyard et al., 2004), and so take a similar experimental lab approach. However, the methodological approach would probably be very different if it started by focusing on the root of the problematic behavior, which is the structured power and dominance of straight men in a patriarchal system.

Finally, in terms of *policy recommendations*, research and policy have focused on victims and bystanders, not perpetrators. The reasons for men's perpetration of sexual assault are not questioned or linked to social structures that privilege straight men. Sexual assault intervention researchers have long called for a greater emphasis on changing the societal conditions which enable and maintain sexual abuse (Banyard et al., 2004; Swift & Ryan-Finn, 1995). Thus, at the very least, these programs should also ask participants to reflect on the social identities of perpetrators, to generate discussion of social location and its relationship to power, as perhaps a first step in changing societal conditions. Having students actively engage with intersectional examples that specifically identify a diverse group of perpetrators and victims would increase understanding of the complexity and scope of the problem.

Deploying an intersectionality-based framework in the analysis of interventions grounded in psychological research would compel us to start from the experiences of minoritized students. Drawing on focus groups with minoritized students about their experience of campus violence, Klein et al. (2020) recommended that interventions should be sensitive to the specific needs of these populations, such as the need to address other forms of inequality that might be concurrent with violence and which might interfere with the willingness to report sexual assault and utilize existing sources; this would also include an expansion of programming scope to include other types of interpersonal violence that are seldom addressed in campus interventions. Developing policy from the standpoint of these students is consistent with the insistence of intersectionality scholars that minoritized groups have agency in the solutions that will be imposed on their communities.

“Wise” schooling

Black and Hispanic students graduate from college at lower rates than White students, and women are underrepresented in science, technology, engineering, and math fields (Martinez & Christnacht, 2021; Shapiro et al., 2017). Steele and colleagues developed the construct of stereotype threat to understand why students from stigmatized groups underperform in challenging academic contexts and to remedy this outcome. They coined the term “wise schooling” to describe interventions designed to mitigate the effects of stereotype threat (Steele, 1997). Stereotype threat has been described as a “threat in the air” (Steele, 1997) created when a member of a social group becomes aware of negative stereotypes about their group and has been shown to cause decrements in performance in stereotype-relevant domains. Stereotype threat is activated when a group member encounters a challenging task in which failure or underperformance in that task can be plausibly explained by the negative stereotype. For example, when group stereotypes, or even mere group membership, is primed, African-American students do worse on verbal tests than White students (Nadler & Clark, 2011; Nguyen & Ryan, 2008; Steele, 1997; Steele & Aronson, 1995), women do worse on advanced math tests than men (Doyle & Voyer, 2016; Nguyen & Ryan, 2008; Picho et al., 2013; Steele, 1997), immigrants do worse on achievement

tests than native-born citizens (Appel et al., 2015), and older adults do worse on memory tasks than younger people (Armstrong et al., 2017, 2020; Lamont et al., 2015, 2018). However, experimental manipulations show that performance decrements can be reduced or eliminated when stereotype threat is mitigated. Notably, both the cause and the solution of the problem are theorized to be located in the immediate situational environment rather than the person (Steele, 1997).

Wise schooling, as an intervention, was meant to address the negative effects of stereotype threat on the academic performance of affected groups. Interventions are mostly targeted toward domain-identified students, meaning students for whom academic success is important for their positive self-regard. Steele (1997) presented a set of “wise” recommendations for both domain-identified and unidentified (those for whom academic success is not important to maintain positive self-regard) students: (1) teacher-student relationships that convey optimism about the student’s potential; (2) offering challenges instead of remediation; and (3) stressing the expandability of intelligence. For domain-identified students, in particular, Steele (1997) recommended: (1) affirming domain belongingness based on the student’s academic potential; (2) valuing multiple perspectives; and (3) providing successful role models who share the stereotyped identity with the student. Finally, for domain-unidentified students, Steele recommended: (1) nonjudgmental responsiveness and (2) building self-efficacy.

The first intervention program was designed by Steele and colleagues specifically to address the poor academic performance and higher drop-out rate of African-American students (compared to White students) at the University of Michigan. Implemented over the course of a student’s first year of college, the program consisted of 20% African American, 20% other students of color, and 60% White first-year students who were randomly selected from admittees to the University. The intervention was designed to maximize domain belongingness and to mitigate negative effects of stereotype threat. Specifically, the program was presented as an honor, thus reinforcing the administration’s belief in the students’ academic potential. Students lived together in a residence hall and were offered the opportunity to participate in dorm-based academic “challenge” workshops (in either calculus, chemistry, physics, or writing). Students also participated in weekly discussion groups in the dorm about adjustment to college and relevant social and personal issues. These discussion groups helped frame adjustment issues as relevant to all students and thus were designed to disrupt any stereotype-related concerns linked to domain-belongingness. Living in a multi-ethnic dorm and participating in the challenge workshops similarly reinforced students’ sense of belonging. These formal programs lasted for 10 weeks. Averaged over the first two cohorts of the program, at the end of the first semester, African-American students in the wise schooling intervention had statistically equivalent grade point averages to White students (Steele, 1997) and GPAs that were significantly higher than African-American students in control groups. Follow-ups showed that drop-out rates were significantly reduced as well.

In the wake of the first reports of wise schooling interventions, a host of additional interventions were designed, which can be organized into three types (Liu et al., 2021): belief-based, identity-based, and resilience-based. Belief-based interventions that were shown in a meta-analysis to have significantly mitigated stereotype threat around academic performance included those that focused on blurring group boundaries, promoting social belonging, and providing in-group role models. Effective identity-based interventions were those that either focused on activating multiple identities or reducing distinctiveness (a third intervention, activating a single positive alternative identity, was not effective.) Effective resilience-based interventions included those that focused on reappraisal and reattribution, improving confidence, teaching–learning orientation and tactics, and self-affirmation. However, there is some evidence that publication bias may have overestimated the effectiveness of resilience-based interventions (Liu et al., 2021).

When considering *who is included and who is left out*, we note that research on stereotype threat and interventions that have been designed to ameliorate it tends to focus on stigmatized minority groups, which is appropriate for interventions designed to reduce achievement gaps and domain underrepresentation. However, most of the interventions were designed to retain already domain-identified students, students who have achieved some level of success in their academic endeavors. This is a laud-

able goal that, nevertheless, does not address the problem of domain-unidentified students, or younger students who disidentify with academics before they finish high school and so may not make it to college. Steele (1997) acknowledged this problem from the start and argued that other interventions were necessary to build domain identification, stronger skills, and self-efficacy in domain-unidentified students. Many of the resilience interventions address this issue with younger students; however, these interventions have not proven to be as robust as the belief and identity interventions (Liu et al., 2021).

When asking “*Whose problem is it?*,” the research on stereotype threat and wise schooling locates the problem in the distal societal and proximal testing contexts and explicitly rejects arguments about lower potential of stigmatized minority group members. Thus, the interventions manipulate aspects of the local context, which have small to moderate effects on academic performance (Doyle & Voyer, 2016; Flore & Wicherts, 2015; Nadler & Clark, 2011; Nguyen & Ryan, 2008; Picho et al., 2013; Shewach et al., 2019; Steele & Aronson, 1995). Since it is easier to change the immediate testing context than societal stereotypes, this seems like a “wise” and effective aspect of these interventions. On the other hand, because the most effective interventions are those that assume domain-belongingness, unidentified students are not targeted (McMillian, 2003). In addition, aspects of the classroom environment that interfere with academic performance are not studied or targeted for intervention. For example, there is evidence that Black adolescent boys tend to disidentify with academics earlier than Black adolescent girls and White adolescents (Cokley et al., 2011; Osbourne, 1995). The reasons are not completely clear but may include aspects of the classroom environment that Black boys experience in different ways than do other groups (e.g., teacher trust; Chavous et al., 2004; Cohen & Garcia, 2014; Cole, 2008; McClain & Cokley, 2017; Steele, 2010; Winston et al., 1997). Consequently, by focusing on domain-identified students, wise schooling interventions may systematically fail to address the needs of African-American boys.

When considering the *role of power and inequality*, it is essential to consider the intersection of social group memberships. Most of the stereotype threat research and wise schooling interventions focus on one stigmatized identity and do not account for the multitude of other identities that have an impact on academic performance, sometimes in reinforcing, and sometimes in contradictory, ways. For example, the research on African-American college student performance does not distinguish between men and women, although there is evidence that the stereotypes that affect them are different and may have different effects on academic performance (Chavous et al., 2004; McClain & Cokley, 2017; Osbourne, 1995). Chavous et al. (2004) argued that African-American men’s underrepresentation on college campuses (compared to African-American women) and overrepresentation on college football and basketball teams resulted in increased susceptibility to stereotype threat. McClain and Cokley (2017) found that gender moderated the relationship between trust and academic performance for African-American college students so that the relationship was stronger for men. They posited that African-American men were more likely than women to disidentify with academics when trust was low. At the lower educational levels, research on stereotype threat and wise schooling does not take into account the role that stereotypes of Black men as physically threatening play in teacher perceptions and trust, which have enormous impact on the immediate environment and make it more likely that Black boys will disidentify with academic achievement (Chavous et al., 2004). Again, because this research is based on the premise of “a threat in the air,” solutions are similarly focused on changing the environment. Thus, interventions designed to both affect the classroom environment, and alter teacher perceptions and trust, could be implemented.

Thinking about *similarities* among studied groups allows us to note that the research on stereotype threat has shown that any stigmatized group can suffer performance deficits when the relevant stereotype is primed and that stereotype threat, across groups, can be ameliorated using experimental manipulations (Nadler & Clark, 2011; Nguyen & Ryan, 2008). However, other research has pointed out the complexity that exists when considering intersecting identities. Shih and colleagues (Gibson et al., 2014; Shih et al., 1999) investigated the impact of simultaneously holding two social identities that have opposite stereotypes associated with them. Specifically, they primed two groups of Asian-American women with either their ethnicity or their gender, on the premise that the

dominant stereotype about Asian people is that they are good at math, and the stereotype about women is that they are bad at math. They found that when ethnicity was primed, participants did better than controls on an advanced math test. However, when gender identity was primed, participants did worse than controls on the math test (for a replication, see Gibson et al., 2014). Thus, paying attention to the conflicting stereotypes that might affect groups is essential to designing effective interventions.

In terms of *methodological practices* and how biases in these practices might contribute to the inefficacy of policies based on psychological research, and how it could be done differently, research shows that interventions in the real world had weaker effects than those in the laboratory (Shewach et al., 2019). To address the issue of domain-unidentified students so that they might attend college and succeed there, interventions need to be targeted not only at the individual level (e.g., resilience-based interventions) but also at the school (domain-affirming, trust-inspiring classrooms) and societal levels (challenging negative stereotypes).

In terms of *policy recommendations*, the research points to increased implementation of wise schooling interventions that focus on beliefs and identities, starting at an early age. However, interventions must be tailored to address the issues that differentially affect groups. For example, are there stereotypes of girls of color that work against them in academic settings? Research shows that Black girls, compared to White girls, are more than three times as likely to be disciplined in middle school (Black boys are twice as likely to be disciplined as White boys; Cooper et al., 2022). Furthermore, the behaviors that were seen as justifying punishment were more likely to be related to teacher perceptions of Black girls as loud and sassy (i.e., teachers' desires to force Black girls to conform to White gendered stereotypes) rather than the rule infractions that were the more common root of disciplinary actions for boys of all ethnicities (Cooper et al., 2022). Cohen and Garcia (2014) argued that each intervention needs to be tailored to the specific identities implicated in the stereotypes and that there is no "one-size-fits-all" approach that would work for all groups.

Fostering pro-environmental behavior

We are increasingly aware of the impact of human behavior on environmental degradation as well as its consequences for climate change, biodiversity, and availability of uncontaminated food, water, and air. In response, some policymakers have sought interventions to encourage pro-environmental behavior, that is, behavior that poses minimal environmental harm or that even benefits the environment (Steg & Vlek, 2009). Social and environmental psychologists have played an important role in these efforts, developing models that specify psychological levers that encourage individuals to change their behavior to reduce their environmental impact (see Blankenberg & Alhusen, 2019). Most of this research investigates the behavior of individuals in their homes, and accordingly most interventions encouraging pro-environmental behavior grounded in this research aim to change society at the level of individual behavior (McAdam & Snow, 1997).

For example, the Values-Beliefs-Norms Theory (Stern, 2000) proposes that values (especially altruism) lead to beliefs, such as the belief that environmental conditions may cause harm, which in turn activates the salience of social norms, including a sense of obligation (Stern et al., 1999). In these models, pro-environmental behavior may be an expression of personal values, including the desire to meet social norms or to reduce the dissonance between attitudes and behaviors, it may reflect perceptions of one's efficacy, or it may be linked to the desire to be a certain kind of person (e.g., altruistic); thus, the models tend to foreground individual agency, morality, motivation, and conformity. Another line of research on pro-environmental behavior takes the form of testing interventions (Moore & Boldero, 2017), and these studies also emphasize psychological mechanisms. Based on a comprehensive review and meta-analysis of the literature, Obaldiston and Schott (2012) found that treatments relying on social psychological processes (including social modeling, goal setting, and fostering cognitive dissonance) were more effective than those providing information, making behavior convenient, or helping

participants monitor their own behavior. Notably, little research has investigated whether the changes produced by interventions persisted over time (Varotto & Spagnoli, 2017).

This body of theory and research explaining how interventions can promote environmentally significant behavior implicitly presumes some characteristics of the targets of their interventions, that is, *who is included* in the category. In general, targets are construed as individual actors who are presumed to be middle-class, first-world persons with the opportunity to choose among different options for consumption (e.g., choices of modes of transportation, control over the thermostat, or energy source in their homes), based in part on convenience and ease, to meet personally held goals. If some members of the relatively privileged population addressed by these psychological models hold positions affording them a larger sphere of influence, for example, if they are positioned to influence corporate practices, this type of behavior is not addressed by the models. Ironically, although participants are generally presumed to be middle class, this research fails to consider the *power* or influence that middle-class status can afford; this is a common problem with research based on dominant groups that do not explore the particularities of dominant group membership (e.g., maleness or Whiteness; Cole, 2009). Even members of the middle class who do not lead large industries may inhabit roles that allow them to make or influence choices at a larger scale than the individual household. For example, a manager may be able to make more sustainable choices for her office by choosing not to authorize the purchase of bottled water or by setting and adhering to recycling goals for the unit. In this respect, individual agency is assumed to be limited to behaviors at the narrowest level, the level of individual choice in the private sphere. In this way, these interventions are constrained by what Grzanka and Miles (2016) have called psychology's epistemological riptide to return to the individual as the level of analysis.

This focus on the behavior of individuals also does not address the question of how to change choices and decisions made by businesses, who are left out of psychological research on pro-environmental behavior. Business practices are the source of a great deal of pollution, and decisions made by corporations inevitably affect consumption options available to individual consumers (e.g., by offering minimally wasteful packaging or creating energy-efficient appliances). Perhaps less obviously, businesses also affect the environment through political lobbying against regulation of their industries and efforts to shape public opinion through media campaigns. By defining environmental problems and solutions as those over which individuals have control, psychological research leaves harmful actions taken by corporations and governments out of the definition of the problem and the solutions proffered. For example, a brief review of the history of the status of recycling in American culture reveals the *role of power* in shaping popular understandings of the causes and preferred solutions to environmental degradation and suggests that psychologists' focus on causes of, and interventions to shape, individual pro-environmental behavior has supported corporate interests, however, unwittingly.

Before World War II, most beverages and dairy products were distributed locally and containers were reused. As many industries consolidated after the war, this became unprofitable and there was a move toward disposable containers. Businesses resisted efforts to regulate this influx of waste using an organized strategy of promoting individuals as responsible for recycling. Their tactics included alliances with government entities, national media campaigns, and public education in schools and organizations such as Boy and Girl Scouts and 4H. They maintained this multi-level strategy to avoid regulation through interventions that placed the onus on individuals and families to recycle, even as definitions of environmental problems changed from the littering crisis of the 50s to concerns about producing too much waste in the 1970s and to the so-called "landfill crisis" of the 1980s (Jaeger, 2018). This complex, organized effort has been so successful that today more people recycle than vote (MacBride, 2013).

These models and the interventions they generate might seem to address a universal dilemma because environmental degradation is "everybody's problem." Although this is true at the broadest level and in the long term, some populations are more immediately and urgently affected, and there are *similarities* among these groups. If we seek to develop interventions to encourage people to engage in

behavior to reduce environmental harm, centering the experiences of less privileged people leads us to draw on a different body of research because people's experience of the environment differs as a function of their social locations, and we most likely would not focus on things like recycling. Subordinated groups experience heightened and immediate harm from environmental threats, including pollution (Perkins, 2012), contaminated air and water, and the effects of climate change such as housing precarity in relation to flooding (Perkins, 2018), which demand transformative change at the level of society. Nevertheless, even though some psychological models of pro-environmental behavior include activism and other political behavior (e.g., Stern, 1999), public sphere activities are largely absent from the empirical studies in this literature. For example, they are not among the major categories of pro-environmental behavior that Obaldiston and Schott (2012) identified in their comprehensive and much-cited review.

IBPA asks policymakers to consider *how methodological practices or biases contribute to inefficacy of policies* based on research. Many of psychology's methods of measurement have been developed specifically in order to study attitudes and beliefs, such as intentions to recycle, and behaviors that are repeated and can occur with varying frequency, like sorting recyclables. Our most familiar methods, such as self-report scales, are less suited to infrequent or even singular behaviors, such as decisions about family size, what kind of car to buy, or whether to install solar panels (Neilson et al., 2021); yet, these behaviors stand to have much greater environmental impact, particularly in light of recently raised concerns about the small proportion of waste materials that can actually be recycled into new products (Crudden, 2021). These methodological preferences also make psychologists' work less relevant for collaboration with interdisciplinary teams and limit the usefulness of environmental psychology to policymakers (Neilson et al., 2021).

In terms of *policy recommendations*, to create interventions addressing these disparities in environmental impact, an intersectional approach would seek to understand how structural racism, classism, and sexism and their intersections are linked to environmental degradation and how to mobilize individuals to create transformative change. This is consistent with Taylor's (2000) environmental justice (EJ) paradigm, which links concern for social justice and workers' rights with recognition of the disproportionate impact of environmental threat on the most subordinate groups. EJ is a pathway into environmental movement participation for people of color. For example, Johnston et al. (2019) described the "Truth Fairy" project, a collaboration between a university and community organizations to identify and address lead contamination from a battery recycling plant in a predominantly (90%) working-class Latinx community in southern California. The intervention included sharing information about the lasting effects of lead exposure on health and engaging community members in a research project in which children's baby teeth were collected from community members and analyzed for lead exposure. Community leaders were able to use this information to obtain funding for remediation and help pass legislation limiting emissions from industries that process lead. Thus, taking an EJ approach suggests the most effective interventions will focus on consciousness-raising, resource mobilization, and networking.

Identity salience is another key construct in the political mobilization literature. However, connections between identity and environmental mobilization are complex and entail both *similarities* and differences across groups. To illustrate, Dennis and Bell (2020) described the way indigenous women understand their gender roles as including serving as protectors and view their activism for clean water in terms of protection rather than protest. But Bell and Braun (2010) found that gender-shaped engagement with the EJ movement in central Appalachia among White coalfield residents in ways that were both similar to, and different from, the Native American activists. For women, movement activism aligned with their identities as mothers, but for men in the region, masculinity was associated with the coal industry, so their gender identity inhibited their participation. The activist men in their sample had to challenge hegemonic masculinity and redefine their self-concepts. These examples suggest that interventions targeting pro-environmental political mobilization must also consider the ways that race, gender, and class identities are associated with different construals of the nature and significance of environmental threats. Where there are commonalities in this framing, there may be opportunities for

coalition building (Cole, 2008). However, policymakers aiming to foster collective action must also note that “cultural activism,” that is, organizing based on shared experiences and concerns, cannot be effective without consideration of structural inequality that may separate groups seeking coalition (Mascias, 2008).

CONCLUSION

Psychologists often reduce intersectionality to the study of intersecting identities, which comes at the expense of using the concept to understand the structural nature of social inequality (Grzanka & Miles, 2016) and how to create change and justice. Certainly, an analysis based on intersectionality illuminates the circumstances of people who occupy multiple marginalized identities. Just as importantly, by centering the experiences of groups at the intersections of structural inequality, an intersectionality framework reveals the dynamics and complexity of how these systems—racism, sexism, classism, and so forth—work together to create and maintain inequality. Intersectionality theorists believe understanding this is critical if we are to change these systems. Our case studies are intended to demonstrate how an intersectional analysis can make policy interventions both broader in their reach and targeted to changing the causes of inequality rather than remediating their proximal effects.

We have two sets of recommendations: one for psychologists doing the basic research on which social policy is based and one for the policymakers themselves. First, for the psychologists, two recommendations become apparent from our review of the three interventions that we examined. First and most importantly, when thinking about the causes and potential solutions to social problems, it is essential to include diverse groups of people in the definition of the problem and start from their experiences. Psychological research tends to rely too much on relatively privileged samples, such as college students and other so-called “WEIRD” samples (Henrich et al., 2016), which are convenient and cost-efficient to test. Centering the experiences of multiply marginalized groups, who tend to suffer the most from structural discrimination and the problems resulting from it, would go a long way toward understanding the phenomena at work and thus suggest more efficacious and transformational interventions to these problems.

Second, and related to the first point, psychologists who aim to meaningfully influence policy must critically reflect on their disciplinary predispositions. Research that prioritizes testing constructs from psychological models risks overlooking the most impactful causes and outcomes of social problems. Commonly used methods in psychology may also limit the usefulness of our research to policymakers. This means that laboratory experiments are not always the most appropriate method for understanding phenomena related to real-world social problems. Often it is more appropriate and useful to employ more exploratory and inductive methodologies when attempting to understand complex phenomena with many causes (Nielsen et al., 2021). For example, most of the studies we cited that centered the experiences of multiply marginalized samples used qualitative methods (Chavous et al., 2004; Klein et al., 2020). A research program that utilizes diverse methodologies will be most effective at creating a body of knowledge that can then provide the foundation for social policy interventions.

Although our case studies have allowed us to make recommendations for improving policies in specific areas, our analysis suggests several more general recommendations for policymakers translating basic research into applied programs. First, it is important to understand that at its core, the discipline of psychology privileges the individual over the structural. This means that policies based on psychological research are not always going to be the best or only solutions to social problems. Instead, policymakers will need to access research that is interdisciplinary and centers the experiences of multiply marginalized groups and addresses the structural causes of social problems. Because this type of research may not be as easily available (i.e., it may be located outside of mainstream psychology journals) and abundant as studies that employ experimental methodology in the laboratory, this might mean having to sponsor the research, for example, by partnering with minoritized communities.

It is also important for policymakers to recognize that they, themselves, might bring the same sort of individualistic biases that are rampant in psychological research to their understanding of the causes of and solutions to social problems. For example, policymakers may not question that recycling is one of the most important ways to protect the environment because they were socialized to believe it, just like everyone else in the United States. Thinking about structural causes of and solutions to social problems is not something Americans, who were socialized into the meritocracy myth (McNamee & Miller, 2009) do well. However, this article shows that these sorts of individual-level interventions often act as proximal solutions and do not address the underlying structural causes of these social problems. Policymakers would do well to remember this and expand the research on which they base their interventions.

REFERENCES

- Appel, M., Weber, S. & Kronberger, N. (2015) The influence of stereotype threat on immigrants: review and meta-analysis. *Frontiers in Psychology*, 6, 900. <https://doi.org/10.3389/fpsyg.2015.00900>
- Armstrong, B., Gallant, S.N., Li, L., Patel, K. & Wong, B.I. (2017) Stereotype threat effects on older adults' episodic and working memory: a meta-analysis. *The Gerontologist*, 57(suppl_2), S193–S205. <https://doi.org/10.1093/geront/gnx056>
- Arnett, J.J. (2016) The neglected 95%: why American psychology needs to become less American. *American Psychologist*, 63(7), 602–614. <https://doi.org/10.1037/0003-066X.63.7.602>
- Armstrong, B., Gallant, S.N., Li, L., Patel, K. & Wong, B.I. (2020) Corrigendum to: "stereotype threat effects on older adults' episodic and working memory: a meta-analysis. *The Gerontologist*, 60(8), 1582–1582. <https://doi.org/10.1093/geront/gnx170>
- Banyard, V.L., Moynihan, M.M. & Plante, E.G. (2007) Sexual violence prevention through bystander education: an experimental evaluation. *Journal of Community Psychology*, 35(4), 463–481. <https://doi.org/10.1002/jcop.20159>
- Banyard, V.L., Plante, E.G. & Moynihan, M.M. (2004) Bystander education: bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, 32(1), 61–79. <https://doi.org/10.1002/jcop.10078>
- Bell, S.E. & Braun, Y.A. (2010) Coal, identity, and the gendering of environmental justice activism in Central Appalachia. *Gender & Society*, 24, 794–813. <https://doi.org/10.1177/0891243210387277>
- Bennett, S. & Banyard, V.L. (2016) Do friends really help friends? The effect of relational factors and perceived severity on bystander perception of sexual violence. *Psychology of Violence*, 6(1), 64–72. <https://doi.org/10.1037/a0037708>
- Bierria, A., Carillo, O., Colbert, E., Ibarra, X., Kigvamasud'Vashti, T. & Maulana, S. (2016) Taking risks: implementing grass-roots community accountability strategies. In: Incite! Women of Color Against Violence (Ed.) *Color of violence: the incite! Anthology*. Durham: Duke University Press.
- Blankenberg, A.-K. & Alhusen, H. (2019) *On the determinants of pro-environmental behavior: a literature review and guide for the empirical economist*. Center for European, Governance, and Economic Development Research (CEGE), Number 350. <https://doi.org/10.2139/ssrn.3473702>
- Breitenbecher, K.H. (2000) Sexual assault on college campuses: is an ounce of prevention enough? *Applied and Preventive Psychology*, 9(1), 23–52. [https://doi.org/10.1016/S0962-1849\(05\)80036-8](https://doi.org/10.1016/S0962-1849(05)80036-8)
- Chavous, T.M., Harris, A., Rivas, D., Helaire, L. & Green, L. (2004) Racial stereotypes and gender in context: African Americans at predominantly Black and predominantly White Colleges. *Sex Roles: A Journal of Research*, 51(1-2), 1–16. <https://doi.org/10.1023/B:SERS.0000032305.48347.6d>
- Cho, S., Crenshaw, K.W. & McCall, L. (2013) Toward a field of intersectionality studies: theory, applications, and praxis. *Signs*, 38(4), 785–810. <https://doi.org/10.1086/669608>
- Cohen, G.L. & Garcia, J. (2014) Educational theory, practice, and policy and the wisdom of social psychology. *Policy Insights from the Behavioral and Brain Sciences*, 1(1), 13–20. <https://doi.org/10.1177/2372732214551559>
- Cokley, K., McClain, S., Jones, M. & Johnson, S. (2011) A preliminary investigation of academic disidentification, racial identity, and academic achievement among African American adolescents. *The High School Journal*, 95(2), 54–68. <https://doi.org/10.1353/hsj.2012.0003>
- Cole, D. (2008) Constructive criticism: the role of student-faculty interactions on African American and Hispanic students' educational gains. *Journal of College Student Development*, 49(6), 587–605. <https://doi.org/10.1353/csd.0.0040>
- Cole, E.R. (2008) Coalitions as a model for intersectionality: from practice to theory. *Sex Roles: A Journal of Research*, 59(5-6), 443–453. <https://doi-org.proxy.lib.umich.edu/10.1007/s11199-008-9419-1>
- Cole, E.R. (2009) Intersectionality and research in psychology. *American Psychologist*, 64(3), 170–180. <https://doi.org/10.1037/a0014564>
- Cooper, B. (2015) Intersectionality. In: Disch, L. & Hawkesworth, M., (Eds.) *Oxford handbook of feminist theory*. New York: Oxford University Press, pp. 385–406. <https://doi.org/10.1093/oxfordhb/9780199328581.013.20>
- Cooper, S.M., Burnett, M., Golden, A., Butler-Barnes, S. & Inniss-Thompson, M. (2022) School discrimination, discipline inequities, and adjustment among Black adolescent girls and boys: an intersectionality-informed approach. *Journal of Research on Adolescence*, 32(1), 170–190. <https://doi.org/10.1111/jora.12716>

- Cortina, L.M., Curtin, N. & Stewart, A.J. (2012) Where is social structure in personality research?: a feminist analysis of publication trends. *Psychology of Women Quarterly*, 36(3), 259–273. <https://doi.org/10.1177/0361684312448056>
- Crenshaw, K.W. (1989) Demarginalizing the intersection of race and sex: a Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 140, 139–167.
- Crunden, E.A. (2021) How useful is recycling, really? *The Atlantic*, 28 January. <https://www.theatlantic.com/science/archive/2021/01/recycling-wont-solve-climate-change/617851/>
- Darley, J.M. & Latane, B. (1968) Bystander intervention in emergencies: diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4), 377–383. <https://doi.org/10.1037/h0025589>
- Dennis, M.K. & Bell, F.M. (2020) Indigenous women, water protectors, and reciprocal responsibilities. *Social Work*, 65, 378–386.
- Doyle, R.A. & Voyer, D. (2016) Stereotype manipulation effects on math and spatial test performance: a meta-analysis. *Learning and Individual Differences*, 47, 103–116. <https://doi.org/10.1016/j.lindif.2015.12.018>
- Eaton, A.A., Grzanka, P.R., Schlehof, M.M. & Silka, L. (2021) Public psychology: introduction to the special issue. *American Psychologist*, 76(8), 1209–1216. <https://doi-org.proxy.lib.umich.edu/10.1037/amp0000933>
- Flore, P.C. & Wicherts, J.M. (2015) Does stereotype threat influence performance of girls in stereotyped domains? A meta-analysis. *Journal of School Psychology*, 53(1), 25–44. <https://doi.org/10.1016/j.jsp.2014.10.002>
- Gibson, C.E., Losee, J. & Vitiello, C. (2014) A replication attempt of stereotype susceptibility (Shih, Pittinsky, & Ambady, 1999): identity salience and shifts in quantitative performance. *Social Psychology*, 45(3), 194–198. <https://doi.org/10.1027/1864-9335/a000184>
- Green, T.L. & Hajiwara, N. (2020) The problem with implicit bias training. *Scientific American*, 28 August. <https://www.scientificamerican.com/article/the-problem-with-implicit-bias-training/>
- Grzanka, P.R. & Cole, E.R. (2021) An argument for bad psychology: disciplinary disruption, public engagement, and social transformation. *American Psychologist*, 76(8), 1334–1345. <https://doi.org/10.1037/amp0000853>
- Grzanka, P.R. & Miles, J.R. (2016) The problem with the phrase “intersecting identities”: LGBT affirmative therapy, intersectionality, and neoliberalism. *Sexuality Research & Social Policy: A Journal of the NSRC*, 13(4), 371–389. <https://doi-org.proxy.lib.umich.edu/10.1007/s13178-016-0240-2>
- Hancock, A. (2016) *Intersectionality: an intellectual history*. New: Oxford University Press.
- Hankivsky, O., Grace, D., Hunting, G., Giesbrecht, M., Fridkin, A., Rudrum, S., Ferlatte, O. & Clark, N. (2014) An intersectionality-based policy analysis framework: critical reflections on a methodology for advancing equity. *International Journal for Equity in Health*, 13, 119. <https://doi.org/10.1186/s12939-014-0119-x>
- Hankivsky, O. & Jordan-Zachery, J.S. (2019) Introduction: bringing intersectionality to public policy. In: Hankivsky, O. & Jordan-Zachery, J.S. (Eds.) *The Palgrave handbook of intersectionality in public policy*. Cham: Springer International Publishing, pp. 1–28. https://doi.org/10.1007/978-3-319-98473-5_1
- Henrich, J., Heine, S.J. & Norenzayan, A. (2016) Most people are not WEIRD. In: Kazdin, A.E. (Ed.) *Methodological issues and strategies in clinical research*, 4th edition, Washington, DC: American Psychological Association, pp. 113–114. <https://doi.org/10.1037/14805-007>
- Horn, L. & Nevill, S. (2006) *Profile of undergraduates in U.S. postsecondary educational institutions: 2003–04: with a special analysis of community college students (NCES 2006–184)*. Washington, DC: US Department of Education (NCES).
- Hurtado, A. (1989) Relating to privilege: seduction and rejection in the subordination of White Women and Women of Color. *Signs*, 14(4), 833–855.
- INCITE: women of Color Against Violence. (2016) *Color of violence: the INCITE! Anthology*. Durham: Duke University Press.
- Jaeger, A.B. (2018) Forging hegemony: how recycling became a popular but inadequate response to accumulating waste. *Social Problems*, 65, 395–415. <https://www.jstor.org/stable/26990956>
- Johnston, J.E., Lopez, M., Gribble, M.O., Gutschow, W., Austin, C. & Arora, M. (2019) A collaborative approach to assess legacy pollution in communities near a lead-acid battery smelter: the “Truth Fairy” project. *Health Education & Behavior*, 46(1), 71S–80S. <https://doi-org.proxy.lib.umich.edu/10.1177/1090198119859406>
- Katz, J., Colbert, S. & Colangelo, L. (2015) Effects of group status and victim sex on female bystanders’ responses to a potential party rape. *Violence and Victims*, 30(2), 265–278. <https://doi.org/10.1891/0886-6708.VV-D-13-00099>
- Katz, J., Merrilees, C., Hoxmeier, J.C. & Motisi, M. (2017) White female bystanders’ responses to a Black woman at risk for incapacitated sexual assault. *Psychology of Women Quarterly*, 41(2), 273–285. <https://doi.org/10.1177/0361684316689367>
- Ketrey, H.H. & Marx, R.A. (2019) The effects of bystander programs on the prevention of sexual assault across the college years: a systematic review and meta-analysis. *Journal of Youth and Adolescence*, 48(2), 212–227. <https://doi.org/10.1007/s10964-018-0927-1>
- Ketrey, H.H. & Marx, R.A. (2021) Effects of bystander sexual assault prevention programs on promoting intervention skills and combatting the bystander effect: a systematic review and meta-analysis. *Journal of Experimental Criminology*, 17(3), 343–367. <https://doi.org/10.1007/s11292-020-09417-y>
- Klein, L.B., Brewer, N.Q., Mennicke, A., Christensen, M.C., Baldwin-White, A., Cloy, C., et al. (2020) Centering minoritized students in campus interpersonal violence research. *Journal of Family Violence*, 36(7), 911–921. <https://doi.org/10.1007/s10896-020-00223-8>
- Lamont, R.A., Swift, H.J. & Abrams, D. (2015) A review and meta-analysis of age-based stereotype threat: negative stereotypes, not facts, do the damage. *Psychology and Aging*, 30(1), 180–193. <https://doi.org/10.1037/a0038586>

- Lamont, R.A., Swift, H.J. & Abrams, D. (2018) A review and meta-analysis of age-based stereotype threat: negative stereotypes, not facts, do the damage”: correction to Lamont, Swift, and Abrams (2015). *Psychology and Aging*, 33(5), vi. <https://doi.org/10.1037/pag0000269>
- Landrine, H. (1985) Race × class stereotypes of women. *Sex Roles: A Journal of Research*, 13(1-2), 65–75. <https://doi.org/10.1007/BF00287461>
- Latane, B. & Darley, J.M. (1968) Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology*, 10(3), 215–221. <https://doi.org/10.1037/h0026570>
- Liu, S., Liu, P., Wang, M. & Zhang, B. (2021) Effectiveness of stereotype threat interventions: a meta-analytic review. *Journal of Applied Psychology*, 106(6), 921–949. <https://doi.org/10.1037/apl0000770>
- Martinez, A. & Christnacht, C. (2021) *Women making gains in STEM occupations but still underrepresented*. Washington, DC: U.S. Bureau of the Census. [https://www.census.gov/library/stories/2021/01/women-making-gains-in-stem-occupations-but-still-underrepresented.html#:~:text=Women%20Are%20Nearly%20Half%20of,Only%2027%25%20of%20STEM%20Workers&text=Despite%20making%20up%20nearly%20half,and%20math%20\(STEM\)%20workforce](https://www.census.gov/library/stories/2021/01/women-making-gains-in-stem-occupations-but-still-underrepresented.html#:~:text=Women%20Are%20Nearly%20Half%20of,Only%2027%25%20of%20STEM%20Workers&text=Despite%20making%20up%20nearly%20half,and%20math%20(STEM)%20workforce).
- Macias, T. (2008) Conflict over forest resources in Northern New Mexico: rethinking cultural activism as a strategy for environmental justice. *The Social Science Journal*, 4, 61–75. <https://doi.org/10.1016/j.soscij.2007.12.006>
- May, V.M. (2015) *Pursuing intersectionality, unsettling dominant imaginaries*. New York: Routledge.
- MacBride, S. (2013) *Recycling reconsidered*. Cambridge, MA: MIT Press.
- McAdam, D. & Snow, D.S. (1997) *Social movements: readings on their emergence, mobilization, and dynamics*. Los Angeles, CA: Roxbury Publishing.
- McClain, S. & Cokley, K. (2017) Academic disidentification in Black college students: the role of teacher trust and gender. *Cultural Diversity and Ethnic Minority Psychology*, 23(1), 125–133. <https://doi.org/10.1037/cdp0000094>
- McDermott, R.C., Kilmartin, C., McKelvey, D.K. & Kridel, M.M. (2015) College male sexual assault of women and the psychology of men: past, present, and future directions for research. *Psychology of Men & Masculinity*, 16(4), 355–366. <https://doi.org/10.1037/a0039544>
- McMillian, M. (2003) Is no child left behind “wise schooling” for African American male students? *The High School Journal*, 87(2), 25–33. <https://www.jstor.org/stable/40364302>
- McNamee, S.J. & Miller, R.K. (2009) *The meritocracy myth*, 2nd edition, Lanham, MD: Rowman & Littlefield.
- Miller, G.A. (1969) Psychology as a means of promoting human welfare. *American Psychologist*, 24(12), 1063–1075. <https://doi.org/10.1037/h0028988>
- Moore, H.E. & Boldero, J. (2017) Designing interventions that last: a classification of environmental behaviors in relation to the activities, costs, and effort involved for adoption and maintenance. *Frontiers in Psychology*, 8, 1874. <https://www.frontiersin.org/article/10.3389/fpsyg.2017.01874>
- Moynihan, M.M., Banyard, V.L. & Bennett, S. (2012) *One hour bystander intervention program*.
- Nadler, J. T. & Clark, M. H. (2011) Stereotype threat: a meta analysis comparing African Americans to Hispanic Americans. *Journal of Applied Social Psychology*, 41(4), 872–890. <https://doi.org/10.1111/j.1559-1816.2011.00739.x>
- Nielsen, K.S., Cologna, V., Lange, F., Brick, C. & Stern, P.C. (2021) The case for impact-focused environmental psychology. *Journal of Environmental Psychology*, 74, 101559. <https://doi.org/10.1016/j.jenvp.2021.101559>
- Nguyen, H.-H.D. & Ryan, A.M. (2008) Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology*, 93(6), 1314–1334. <https://doi.org/10.1037/a0012702>
- Osbaldiston, R. & Schott, J.P. (2012) Environmental sustainability and behavioral science: meta-analysis of pro environmental behavior experiments. *Environment and Behavior*, 44(2), 257–299. <https://doi.org/10.1177/0013916511402673>
- Osbourne, J.W. (1995) Academics, self-esteem, and race: a look at the underlying assumptions of the disidentification hypothesis. *Personality and Social Psychology Bulletin*, 21(5), 449–455. <https://doi.org/10.1177/0146167295215003>
- Perkins, T.E. (2012) Women’s pathways into activism: rethinking the women’s environmental justice narrative in California’s San Joaquin Valley. *Organization & Environment*, 25, 76–94. <https://doi.org/10.1177/1086026612445390>
- Perkins, P.E. (2018) Climate justice, gender and intersectionality. In: Jafry, T., Mikulewicz, M. & Helwig, K. (Eds.) *Routledge handbook of climate justice*. New York: Routledge, pp. 349–358.
- Picho, K., Rodríguez, A. & Finnie, L. (2013) Exploring the moderating role of context on the mathematics performance of females under stereotype threat: a meta-analysis. *The Journal of Social Psychology*, 153(3), 299–333. <https://doi.org/10.1080/00224545.2012.737380>
- Purdie-Vaughns, V. & Eibach, R.P. (2008) Intersectional invisibility: the distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles: A Journal of Research*, 59(5-6), 377–391. <https://doi-org.proxy.lib.umich.edu/10.1007/s11199-008-9424-4>
- Sabina, C. & Ho, L.Y. (2014) Campus and college victim responses to sexual assault and dating violence: disclosure, service utilization, and service provision. *Trauma, Violence, & Abuse*, 15(3), 201–226. <https://doi.org/10.1177/1524838014521322>
- Schulz, A.J. & Mullings, L. (2005) *Gender, race, class, and health: Intersectional approaches*. San Francisco, CA: Jossey-Bass.
- Schwartz, J.P. (2015) College male sexual assault of women and the psychology of men: a commentary. *Psychology of Men & Masculinity*, 16(4), 367–369. <https://doi.org/10.1037/a0039692>
- Shapiro, D., Dundar, A., Huie, F., Wakhungu, P., Yuan, X., Nathan, A. & Hwang, Y.A. (2017) *A national view of student attainment rates by race and ethnicity—Fall 2010 cohort (Signature Report No. 12b)*. Herndon, VA: National Student Clearinghouse Research Center.

- Shewach, O.R., Sackett, P.R. & Quint, S. (2019) Stereotype threat effects in settings with features likely versus unlikely in operational test settings: a meta-analysis. *Journal of Applied Psychology*, 104(12), 1514–1534. <https://doi.org/10.1037/apl0000420>
- Shih, M., Pittinsky, T.L. & Ambady, N. (1999) Stereotype susceptibility: identity salience and shifts in quantitative performance. *Psychological Science*, 10(1), 80–83. <https://doi.org/10.1111/1467-9280.00111>
- Shin, R.Q., Welch, J.C., Kaya, A.E., Yeung, J.G., Obana, C., Sharma, R., Vernay, C.N. & Yee, S. (2017) The intersectionality framework and identity intersections in the Journal of Counseling Psychology and The Counseling Psychologist: a content analysis. *Journal of Counseling Psychology*, 64(5), 458–474. <https://doi.org/10.1037/cou0000204>
- Steele, C.M. (1997) A threat in the air: how stereotypes shape intellectual identity and performance. *American Psychologist*, 52(6), 613–629. <https://doi.org/10.1037/0003-066X.52.6.613>
- Steele, C.M. & Aronson, J. (1995) Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811. <https://doi.org/10.1037/0022-3514.69.5.797>
- Steg, L. & Vlek, C. (2009) Encouraging pro-environmental behaviour: an integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309–317. <https://doi-org.proxy.lib.umich.edu/10.1016/j.jenvp.2008.10.004>
- Stern, P.C. (2000) Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56, 407–424. <https://doi-org.proxy.lib.umich.edu/10.1111/0022-4537.00175>
- Stern, P.C., Dietz, T., Abel, T., Guagnano, G.A. & Kalof, L. (1999) A value-belief-norm theory of support for social movements: the case of environmentalism. *Human Ecology Review*, 6(2), 81–97. <http://www.jstor.org/stable/24707060>
- Swift, C.F. & Ryan-Finn, K. (1995) Perpetrator prevention: stopping the development of sexually abusive behavior. In: Swift, C.F. (Ed.) *Sexual assault and abuse: sociocultural context of prevention*. New York: Haworth Press, pp. 13–44.
- Taylor, D.E. (2000) The rise of the environmental justice paradigm: injustice framing and the social construction of environmental discourses. *American Behavioral Scientist*, 43(4), 508–580.
- Varotto, A. & Spagnolli, A. (2017) Psychological strategies to promote household recycling. A systematic review with meta-analysis of validated field interventions. *Journal of Environmental Psychology*, 51, 168–188. <https://doi-org.proxy.lib.umich.edu/10.1016/j.jenvp.2017.03.011>
- Violence against women reauthorization act of 2013, Public Law 113–4, 113th Congress. (2013) Available at: <https://www.congress.gov/113/plaws/publ4/PLAW-113publ4.htm>
- Warshaw, R. (1988) *I never called it rape: the Ms. Report on recognizing, fighting, and surviving date and acquaintance rape*. New York: Harper & Row.
- Williams, S.L., Job, S.A., Todd, E. & Braun, K. (2020) A critical deconstructed quantitative analysis: sexual and gender minority stress through an intersectional lens. *Journal of Social Issues*, 76(4), 859–879. <https://doi-org.proxy.lib.umich.edu/10.1111/josi.12410>
- Winston, C., Eccles, J.S., Senior, A.M. & Vida, M. (1997) The utility of expectancy/value and disidentification models for understanding ethnic group differences in academic performance and self-esteem. *Zeitschrift Für Pädagogische Psychologie /German Journal of Educational Psychology*, 11(3–4), 177–186.
- Wiseman, J.P. (1979) Toward a theory of policy intervention in social problems. *Social Problems*, 27(1), 3–18. <https://doi.org/10.2307/800013>

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